

Remarks:

1. Rejections

Claims 1-4 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 5,800,673 to Okuda et al. (“Okuda”). Moreover, claims 5-10 stand rejected under 35 U.S.C. § 103(a), as allegedly rendered obvious by Okuda in view of U.S. Patent No. 5,478,872 to Yamasoe. Applicants respectfully disagree.

2. 35 U.S.C. § 102(b)

Claims 1-4 and 12 stand rejected as allegedly anticipated by Okuda. “A claim is anticipated if and only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP 2131. The Office Action alleges that Okuda describes each and every element as set forth in claims 1-4. Applicants respectfully disagree.

Specifically, original claim 1 describes a heat exchanger comprising “a first aluminum member coated with a first portion of a resin, and a second aluminum member coated with a second portion of said resin, wherein said first aluminum member is fixed to said second aluminum member via said first portion of said resin and said second portion of said resin.” (Emphasis added.) As such, the resin fixes the aluminum members to each other.

In contrast, Okuda describes a heat exchanger including a plurality of tubular elements 1. Tubular elements 1 are fixed to each other by “arranging two dish-like core plates 6 into an inside-to-inside relation and subsequently brazing them at their peripheries 6a to be integral with each other.” Okuda, Column 8, Lines 53-56. Specifically, a “brazing agent layer is applied by a cladding technique so that the core plates 6 are easily brazed together.” *Id.* at Column 8, Lines 59-61. Each core plates 6 includes a rib 7, and “a plurality of straight drainage canals 7a are defined by the inwardly protruding recessed ribs 7.” *Id.* at Column 10, Lines 20-21. Moreover, “in order to improve the drainage of condensed water, it is desirable and effective that the straight canals 7a are covered with a resin coating (S).” *Id.* at Column 10, Lines 21-24. As such, the purpose of the resin coating (S) applied to straight drainage canals described in Okuda is to increase drainage. The resin coating (S) also may be applied to the surfaces of tubular elements 1. Specifically, the heat exchanger is assembled by brazing, then submerged in the resin (S), and then subjected to a baking process. *Id.* at Column 13, Lines 43-57.

The Office Action states that “Okuda discloses (figure 5) that the first aluminum members and the second aluminum members are mainly fixed together by brazing. However, the first and the second aluminum members are also fixed together by means of a first portion

and a second portion of the resin (S) in some degree since the resin overcoats between the two members. Therefore, in case the brazing connection failed, the two aluminium members still hang onto each other through the connecting portion of the resin (S).” Office Action, Page 2, Lines 11-16. Thus, the Office Action asserts that because a portion of the resin (S) overlaps between the two tubular elements 1, if the brazing connection fails, the overlapping portion of the resin retains the two tubular elements 1 fixed to each other.

Nevertheless, the only purpose which Okuda describes for the resin (S) is to increase drainage. As such, Okuda is silent as to whether the properties of the resin (S) are such, that the resin (S) also may fix the two tubular elements 1 to each other. Because Okuda does not discuss whether the resin (S) may fix the two tubular elements 1 to each other, the Office Action relies on Okuda’s **Fig. 5** to assert that the overlapping portion of the resin (S) inherently would retain the two tubular elements 1 fixed to each other if the brazing connection fails. However, “the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” MPEP 2112 (emphasis added.) Instead, “the Office Action must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art.” *Id.* (emphasis added.)

Okuda states that “[t]he hydrophilic resin composition must comprise a polyvinyl alcohol resin as the main component [which is] is blended with a polyamide and/or polyvinyl pyrrolidone resin, a film hardener, and a surfactant.” *Okuda*, Column 11, Lines 57-61. Moreover, the amount of film hardener cannot exceed 15 parts by weight because the film hardener then will react with the hydrophilic resin molecules and will fail to increase the hydrophilic properties of the resin. *Id.* Column 13, Lines 1-6. Applicants maintain that the Office Action fails to satisfy its burden of showing that the resin composition described in Okuda necessarily fixes the two tubular elements 1 to each other if the brazing connection fails. (Emphasis added.) Further, Applicants maintain that the surface area covered by the overlapping portion of the resin (S) is minimal relative to the total surface area covered by the resin (S), and the Office Action fails to satisfy its burden of showing that the resin composition described in Okuda, in combination with the minimal amount of surface area covered by the overlapping portion of the resin (S), necessarily fixes the two tubular elements 1 to each other if the brazing connection fails.

Thus, Okuda fails at least to describe a heat exchanger comprising “a first aluminum member coated with a first portion of a resin, and a second aluminum member coated

with a second portion of said resin, wherein said first aluminum member is fixed to said second aluminum member via said first portion of said resin and said second portion of said resin,” as set forth in amended claim 1. Therefore, Applicants respectfully request that the Examiner withdraw the anticipation rejection of claim 1. Claims 2-4 depend from amended claim 1. Therefore, Applicants respectfully request that the Examiner also withdraw the anticipation rejection of claims 2-4.

3. 35 U.S.C. § 103(a)

Claims 5-10 stand rejected as allegedly rendered obvious by Okuda in view of Yamasoe. Applicants respectfully disagree. Specifically, original claim 1 describes a heat exchanger comprising “a first aluminum member coated with a first portion of a resin, and a second aluminum member coated with a second portion of said resin, wherein said first aluminum member is fixed to said second aluminum member via said first portion of said resin and said second portion of said resin.” As such, the resin fixes the aluminum members to each other. As set forth above with respect to the anticipation rejection of claim 1, Okuda fails to disclose or suggest that the first aluminum member is fixed to the second aluminum member via the resin. The Office Action does not allege that Yamasoe or any other reference discloses or suggests these missing elements. Claims 5-10 depend from amended claim 1. “If an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.” MPEP 2143.03 (citations omitted). Therefore, Applicants respectfully request that the Examiner withdraw the obviousness rejection of claims 5-10.

Moreover, Applicants note that Okuda states that “[t]he hydrophilic resin composition must comprise a polyvinyl alcohol resin as the main component [which is] is blended with a polyamide and/or polyvinyl pyrrolidone resin, a film hardener, and a surfactant.” Okuda, Column 11, Lines 57-61 (emphasis added.) Thus, Okuda teaches away from its combination with another reference to modify the resin composition described in Okuda to achieve Applicant’s claimed invention.

Conclusion:

Applicants respectfully submit that this application, as amended, is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that an interview with Applicants' representatives, either in person or by telephone, would expedite prosecution of this application, we would welcome such an opportunity. Applicants believe that there are no fees due as a result of this Response. Nevertheless, in the event of any variance between the fees determined by Applicants and the fees determined by the U.S. Patent and Trademark Office, please charge or credit such variance to the undersigned's Deposit Account No. 02-0375.

Respectfully submitted,
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